Program Executive Office
PEO CS&CSS
Combat Support & Combat Service Support

SWA LNO OVERVIEW

Presented to:

The Tactical Wheeled Vehicle Conference

Providing Ready and Relevant Sustainment Capability to Combatant Commanders and the Joint Team!

MAJ Robert A. Bean & **MAJ Samuel C. Homsy**
APM Force Provider
DPM Construction Equipmen
Materials Handling Equipmen

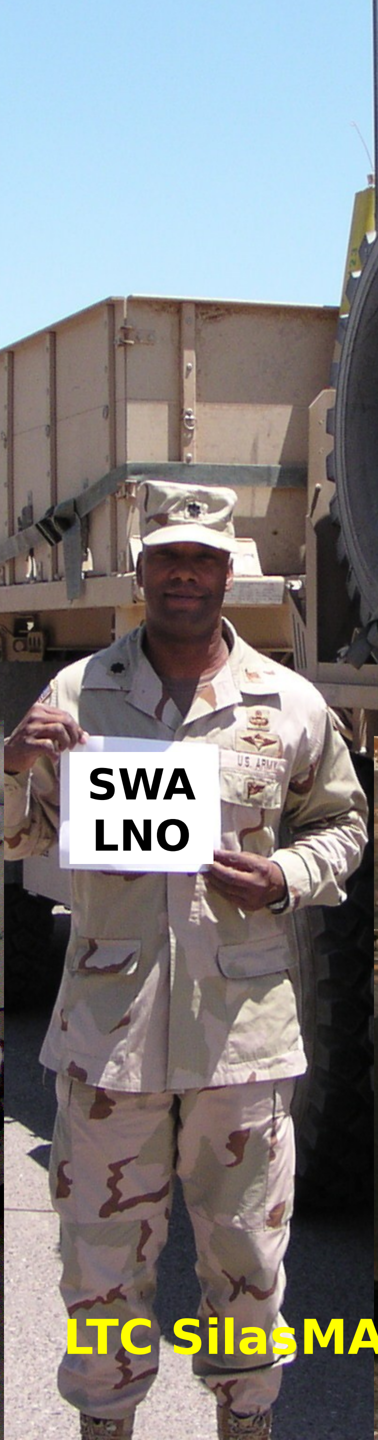
Serving "Our Army at War -- Relevant and Ready"

AGENDA

- PEO CS&CSS in Action
- Impact on System Design
  - Reliability
  - Ease of Service
  - Human Factors
  - ERGONOMICS
  - Survivability
  - In Theater Logistics
- LNO'S Relevance

COL Dellarocco & MAJ Cash

MAJ Bean



LTC Silas

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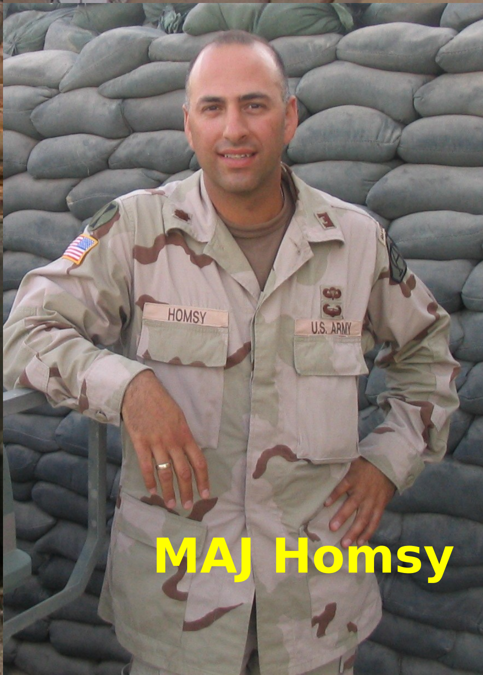
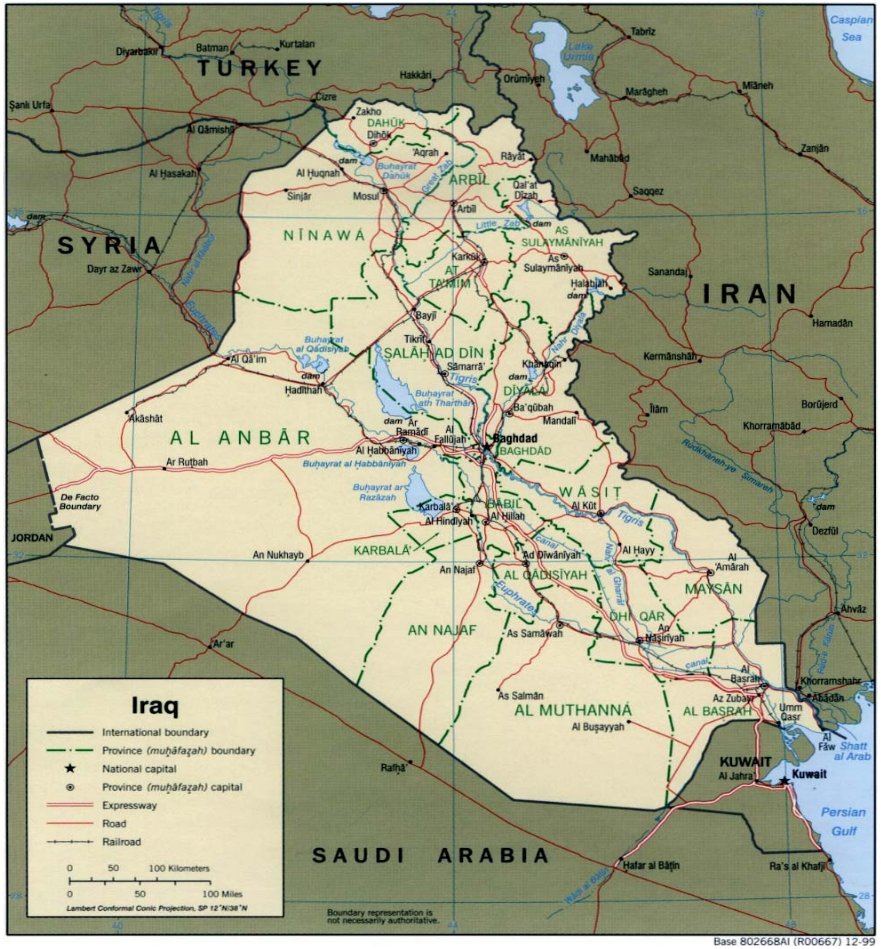


MAJ Homsy

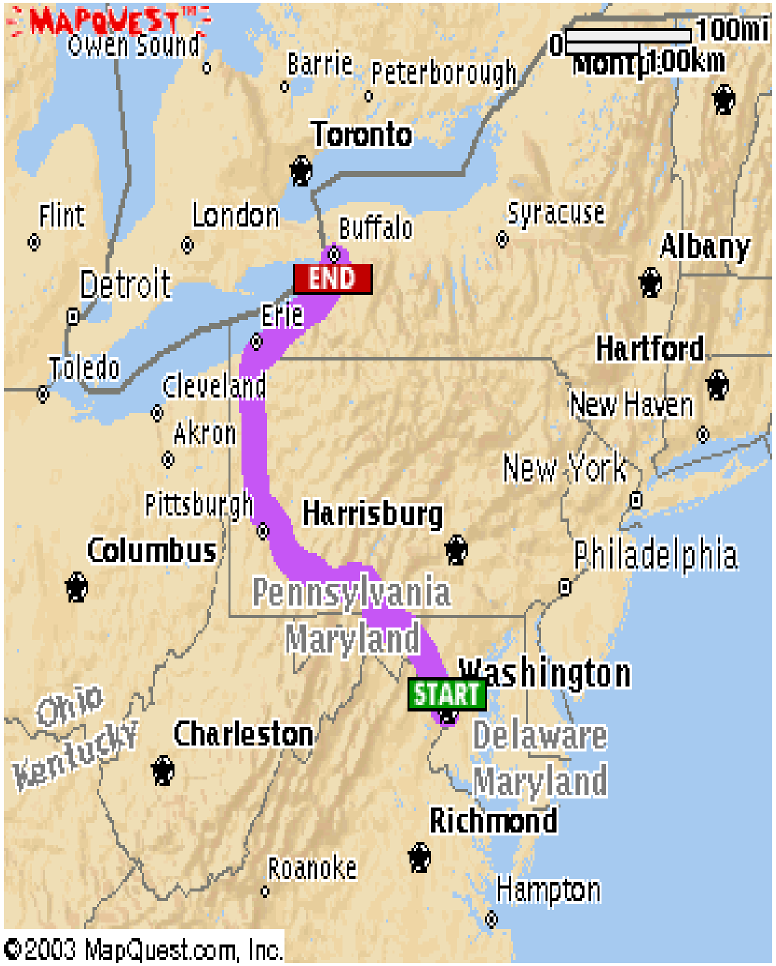
The Environment in Which Our Systems Operate

- **OPTEMPO**
- **Theater Size**
  - Up to 500 Miles Long
  - Doha, Kuwait to Tikrit, Iraq- 450 m
  - Washington DC to Buffalo-   450 m
  - DC to Detroit = Kuwait to Mosul
- **Physical Environment**
  - Heat
  - Dust
  - Cold

OIF Scenario


TURKEY
SYRIA
IRAN
JORDAN
SAUDI ARABIA
KUWAIT
Kuwait
Caspian Sea
Persian Gulf
NĪNAWÁ
ARBĪL
AS SULAYMĀNĪYAH
AT TA'MĪM
ŞALĀH AD DĪN
DIYĀLÁ
AL ANBĀR
BAGHDĀD
Baghdad
WĀSIT
BĀBIL
KARBALĀ'
AL QĀDISĪYAH
MAYSĀN
DHĪ QĀR
AN NAJAF
AL MUTHANNÁ
AL BAŞRAH
Mosul
Arbīl
Kirkūk
Tikrīt
Sāmarrā'
Ba'qūbah
Ar Ramādī
Al Fallūjah
Karbalā'
Al Hillah
An Najaf
Ad Dīwānīyah
Al Kūt
Al 'Amārah
An Nāşirīyah
As Samāwah
Al Başrah
Umm Qaşr
Ar Rutbah
Euphrates
Tigris
Iraq
International boundary
Province (muḩāfaẓah) boundary
National capital
Province (muḩāfaẓah) capital
Expressway
Road
Railroad
0 50 100 Kilometers
0 50 100 Miles
Lambert Conformal Conic Projection, SP 12°N/38°N
Boundary representation is not necessarily authoritative.

Base 802668AI (R00667) 12-99


MAPQUEST
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Richmond
Roanoke
Hampton
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Cities, Cross Country, Highways

PEO CS&CSS IN ACTION

ACQUISITION
ARMY
CORPS
MILITARY
+
CIVILIAN
TEAM

Tactical Wheeled Vehicles

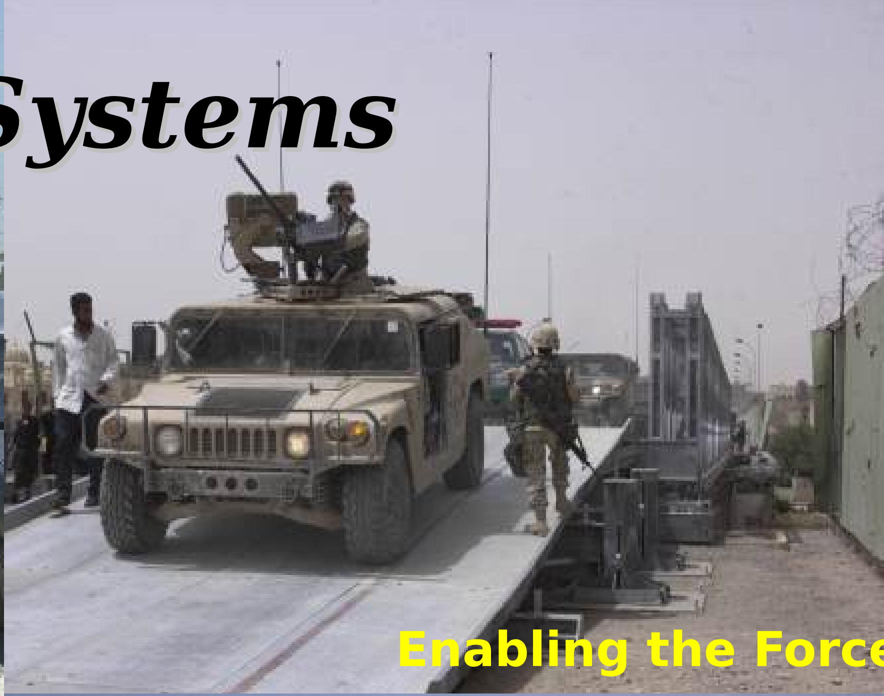
Over 50,000 Trucks in Theater

Trailers

Platforms that Supply the Force

Bridging Systems

Connecting Communities



Enabling the Force

Petroleum & Water

Providing the Life Blood to the Force

Army Watercraft

- TSV Logged over 67,000 Nautical Miles
- Transported over 7000 STONS & 1385 PAXs

Mobile Electric Power

- Power Capability to Joint Forces
- Generators Powering the AOR
- “The Heart” of the Quality of Life

WARNING
NOISE AREA
MAY CAUSE HEARING LOSS
USE PROPER EAR PROTECTION

Force Sustainment Systems

Transforming the Way We Support Soldiers in the Fie

SOLDIER LIFE SUPPORT SYSTEMS

AERIAL DELIVERY SYSTEMS

SHELTER SYSTEMS

FORCE PROVIDER

CARGO AERIAL DELIVERY

FIELD FEEDING

FIELD SERVICES

Reduced Resource Consumption

Rapid Deployment Capability

Reduced Footprint

Increased Sustainability

Single Battlefield Fuel

CBC
SPACE HEATERS
ECUs
ASH
LME
FP
BBCM
PEGASYS
ECDC
DRAS
MBU
CK
LADS
PRODUCT MANAGER
FORCE SUSTAINMENT SYSTEMS
AERIAL DELIVERY
FIELD FEEDING / FIELD SERVICES
SHELTER SYSTEMS
FORCE PROVIDER

Force Provider

36 Modules Deployed in AOR

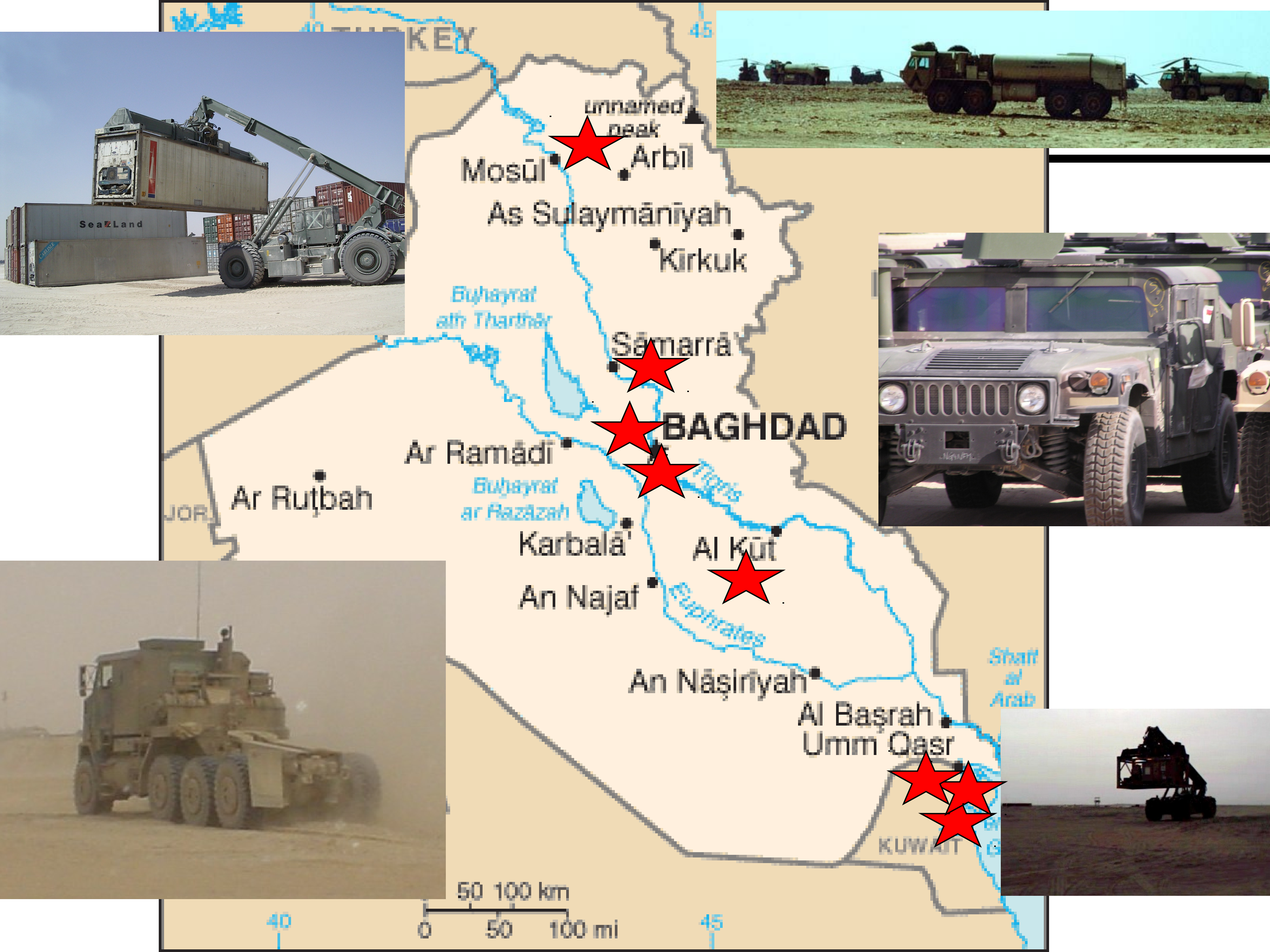
Exceeding Design Capacity

KEEP OFF GRASS

Supporting over 17,000

Construction & Material Handling Equipment

Moving & Enabling the Force


TURKEY
unnamed peak
Mosūl
Arbīl
As Sulaymānīyah
Kirkuk
Buhayrat ath Tharthār
Sāmarrā'
BAGHDAD
Ar Ramādī
Ar Ruţbah
JOR.
Buhayrat ar Razāzah
Tigris
Karbalā'
Al Kūt
An Najaf
Euphrates
An Nāşirīyah
Al Başrah
Umm Qaşr
Shaţţ al Arab
KUWAIT
Sea Land
40
45
50 100 km
0 50 100 mi

Impact That System Design and Theater Logistics Have on War Performance

- **Reliability**
- **Ease of service, operation and rep**
- **Human Factors**
- **Ergonomics**
- **Survivability**
- **In theater logistics**

Reliability

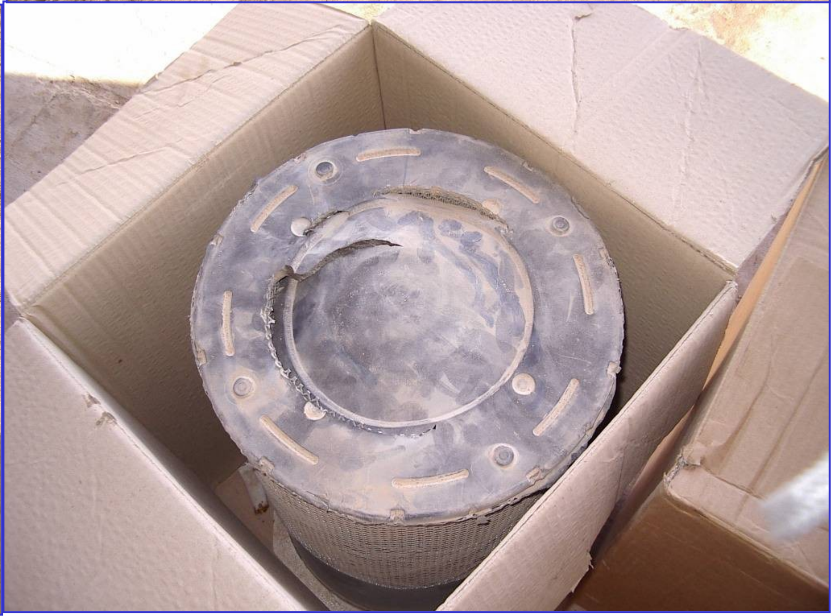
- **Requirements**
  - The bar is set too low (system/component) to meet current Optempo
  - Current Systems Are Over-aged and Thus Developed to Lower Standards
- **Business Mind Set**
  - How Do We Pay for and Demand Reliability up Front?
  - I s Vs.

Reliability

- **How much do we need?**
  - 90 days without system failure
  - PM investment in reliability = Time to create a theater Sustainment System
  - System Reliability must increase min x10
  - Fuel efficiency x2

Ease of Service, Operation and Repair

- **Conditions Less Than Desirable**
  - **Heat**
  - **Dust**
- **Risk of “Snowball Effect”**
  - **High Tech Equipment + Inadequate Training/PMCS + Heat + D**
    Dea

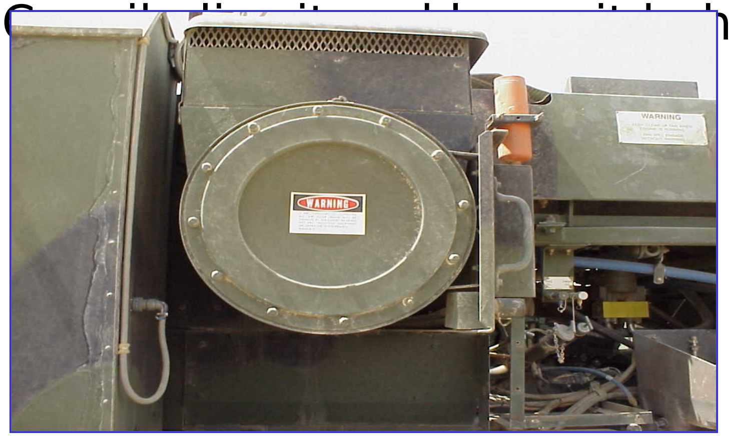


Ease of Service, Operation and Repair

- Leadership Challenge – OPTEMPO vs. Maintenance-Service Time
- Lack of Training –
  - Operator and Maintenance
  - Immature and High Tech Piece of Equip

Ease of Service, Operation and Repair

- Ease of Service- The Commercial Auto Industry - Think Toyota
- OPTEMPO – Vehicle PMCS/Mission Requirements/Soldiers’ PMCS
- Jiffy Lube = Stop Gap Measures
- Repair-maintenance ratio - cost vs reality of two levels of maintenance
- Two levels of maintenance existed during first 30 days:
  - Repair in place with operators and on hand stocks
  - C hind



125º F +12 Bolts at 140º F = NOGO

Human Factors and How It Impacts Systems

- **Our Biggest Investment**
  - Our Soldiers
  - Represent the Finest Fighting Men and Women in the World
- **We Fail to Fully Account for Soldiers’ Time As a Cost Matrix or Resource Constraint**
  - NET and Concurrent Training Requirements
  - Training vs. Other Requirements in Garrison
  - Log Play vs. Real Battle Play at Training Centers

- **Must Consider the System Impact on Soldier Performance, Safety, Availability and Retention**

Ergonomics

- **Use the Freightliner 915A3 Cab As a Start Pace for All to Emulate**
- **Trade off the Cost of Soldier Performance Against System Investment i.e. Ability to Shoot, Operate and Communicate for Long Periods of Time**
- **A/C a Must for Quality of Life & Performance**

- **Which System Would You Want to Ride on for 8 Hours in 125 º F**

In Theater Logistics

- **Overhaul of the Retail Logistics**
  - Challenge of an Evolving Theater
  - Sweeping Generalization on Repair Parts: In Theater Visibility – FEDEX/DHL Works
  - Just in Time Logistics Failed to Support the War Fighters for at Least 60-90 Days
- **Inadequate Parts Flow Reinforced War Fighters Survival Behaviors**:
  - Bring More With You up Front
  - Cannibalize
  - Contract With in Theater Commercial Dealers
- **Theater Contract Logistics**
  - Cost vs. Risk
  - Outsourcing is Working
  - Provides Consistency
  - Accountability

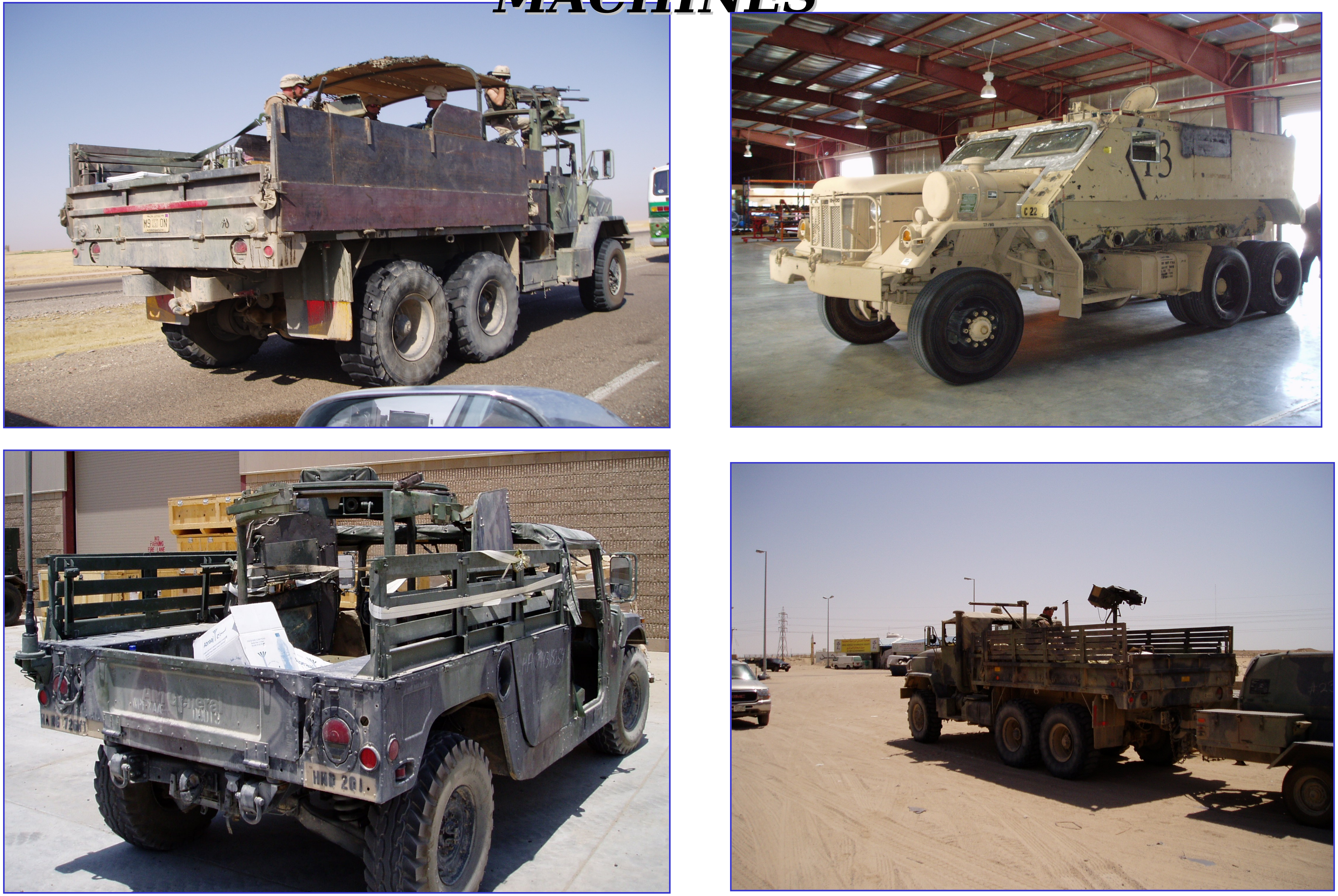
Survivability

- **Get a Commitment From R&D Community to Focus on Immediate Improvements to Realistic Threats**
  - RPGs
  - Small Arms
  - Mines
  - Crew Protection & Weapon Stations

- **Leverage the Information Gathered by PM Abrams and PM Bradley**
- **Include Crash Testing – Safety Restraints**
- **Right Sized Payload, Reliability and Survivability (Include Crash Worthiness), Efficiency Could Be Program Wins for FTTS**

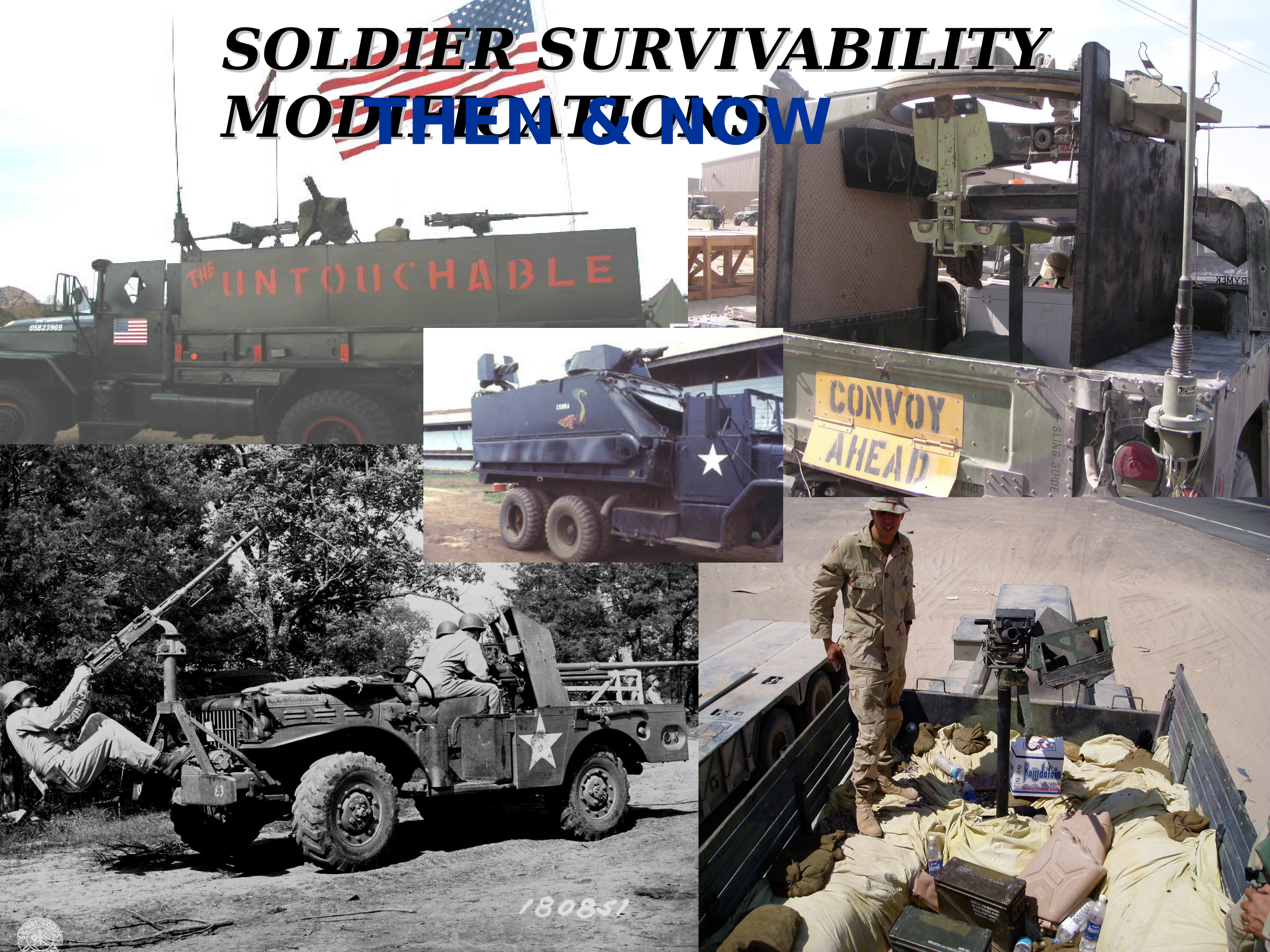
Survivability

SOLDIER FIELD MODIFICATIONS = MAD MAX MACHINES



SOLDIER SURVIVABILITY MODIFICATIONS

THEN & NOW


THE UNTOUCHABLE
05823969
COBRA
CONVOY AHEAD
SLING GUIDE
180851

LNO OPERATION RELEVANCE

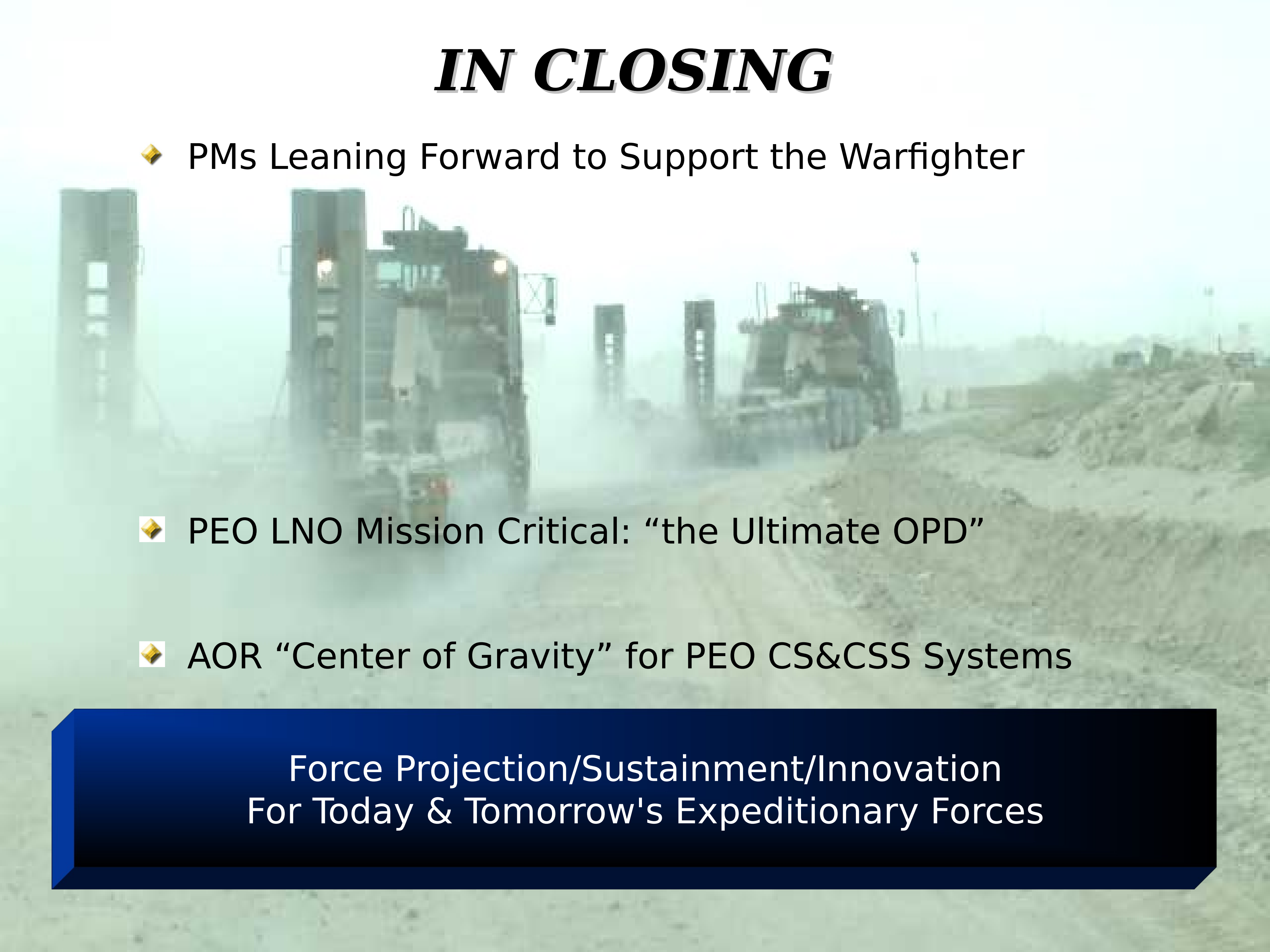
- Provides a Face to the Warfighter
  - LNO Provides rapid reaction capability “ground truth” to the PEO as well as AMC/CFLCC/CJTF-7
  - Warfighter /Logisticians Leadership appreciate PEO Concern/Presence
- Focal point for Planning and Execution Staff
  - Understand PEO Structure and where to go to get answers
  - Eliminate the need for “Hot Taskers” thru ASAALT
    - Gets the answer from the PMs
    - Address simple answers before they become BIG ones

LNO OPERATION RELEVANCE

- **Eyes on target for PM Issues**
  - Accountability of Force Provider
  - Trucks and trailers in Bone Yard
  - Up Armor HMMWV, RTCH
  - Armor kit installation
- **Fielding of Urgent Requirements**
  - Containerized Kitchen
  - Food Sanitation Centers
  - Force Provider
  - Bobcats
  - D9R Dozer

- **Personnel interaction & accountability of PEO Contractors on the Battlefield**

IN CLOSING



- PMs Leaning Forward to Support the Warfighter
- PEO LNO Mission Critical: “the Ultimate OPD”
- AOR “Center of Gravity” for PEO CS&CSS Systems

Force Projection/Sustainment/Innovation
For Today & Tomorrow's Expeditionary Forces

Questions

Serving "Our Army at War -- Relevant and Ready"